

Amendments to the Specification:

Please replace the numbered paragraphs with the changes as indicated below.

[0002] This application discusses concepts in particular embodiments that are related to patent application 09/696,893 filed 26 October 2000 entitled METHOD AND APPARATUS FOR NETWORK DECEPTION/EMULATION, which claims priority from provisional patent application 60/165,581 filed November 15, 1999. This application discusses concepts in particular embodiments that are related to patent application 60/380,824 entitled METHOD AND APPARATUS FOR AN INVISIBLE ROUTER. This application discusses concepts in particular embodiments that are related to patent application A/N 10/678,609 entitled METHOD AND APPARATUS PROVIDING DECEPTION AND/OR ALTERED EXECUTION OF LOGIC IN AN INFORMATION SYSTEM filed on the same date as this application. Each of these applications and all documents referred to therein are hereby incorporated by reference.

[0010] Protecting information systems from various forms of attack has long been of concern to practitioners in the field. Some forms of protection are built into operating systems, such as user and/or password authentication. Other forms of protection include various software and sometimes hardware strategies. A very commonly used form of protection is anti-virus software. Inventor Fred Cohen, as early as 1988, proposed and implemented an integrity shell, which was a program that run in an operating system kernel space and used a modified execution system call to verify a check sum over every program before executing that program. Such a modified system call allowed the system to protect against viruses that hid within executable components, because the presence of such viruses would change the checksum of those executable components. Further information about this work is available at <http://all.net/books/integ/vmodels.html>.

[0011] It is believed to be generally known to modify parts of an operating system, including parts of kernel system calls, for various reasons. In some cases, modified system calls will preserve original system calls in order to remove modifications or in order to run original system calls after the modified portion is run. For example, such techniques are discussed in "The Linux Kernel Module Programming Guide" by Ori Pomerantz, believed available 1999-05-19. (see www.tldp.org/LDP/lkmpg/node20.html.)

[0012] Various strategies used in computer systems have at times included providing some type of misinformation. Some logic modules, for example, are designed to hide themselves from various operating system functions, such as process viewing functions, and thus can cause functions to provide a list of processes and(/)or files and(/)or users, for example, that are not complete. One use of such a strategy is mentioned in the context of a program referred to as the Kernel Intrusion System. This program is described as a kernel level rootkit that, among other things, makes modifications to the kernel to get some privileges, and hides itself from system administrators. Further information is available at www.packetstormsecurity.org/UNIX/penetration/rootkits/kis-0.9.tar.gz.

Other References

Fred Cohen, Operating System Protection Through Program Evolution, Computers and Security 1992. (In this paper, techniques for automatically modifying programs without changing their operation are given as a method of camouflage to conceal points of attack.) all.net/books/IP/evolve.html

Fred Cohen, Information System Defenses - A Preliminary Classification Scheme Computers and Security, 1997. (This paper describes almost 140 different classes of protective methods gathered from many different sources.) all.net/CID/Defense/Defense.xref

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Fred Cohen, A Note on Detecting Tampering with Audit Trails, IFIP-TC11, 'Computers and Security', 1996 all.net/books/audit/audmod.html

W. Cheswick and S. Bellovin, Firewalls and Internet Security - Repelling the Wiley Hacker Addison-Wesley, 1994.

Mikhail Auguston, J. Bret Michael, Richard Riehle, and Neil C. Rowe, "Software Decoys: Intrusion Detection and Countermeasures," Proceedings of the 2002 IEEE Workshop on Information Assurance, West Point, NY, June 2002. www.cs.nps.navy.mil/people/faculty/bmichael/publications.html.

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Lance Spitzner, "Honeypots: Definitions and Value of Honeypots," www.trackinghackers.com/papers/honeypots.html, May 2003.